

REMARKS/ARGUMENTS

Claim 17 having been previously canceled, the claims active in this application are Claims 1-16, 18 and newly added Claim 19. Of the above claims, Claims 1-12 and 18 are withdrawn from consideration based upon the Examiner's restriction requirement.

The Examiner acknowledged the Applicants' election of Group II Claims 13-16 in the reply filed on 10/08/2007. However, Applicants want to correct the record. The election was made with traverse.

The Examiner objected to Claim 15 under 37 CFR 1.75 (c) as being in improper form because a multiple dependent claim cannot depend from another multiple dependent claim. We however traverse his objection because Claim 15 as previously amended is not actually a multiple dependent claim; see Preliminary Amendment made as of February 17, 2005. Therefore an action on the merits for Claim 15 and allowance is requested.

The Examiner rejected Claims 13-16 under 35 U.S.C. 102 (b) as being anticipated by Theil et al. (US 5,837,091, hereinafter "Theil"). This ground of rejection is traversed.

The object of the present invention is to develop articles having a microstructured surface which is capable of reducing frictional or flow resistance when a turbulent flow of gas or liquid passes over the material. This type of surface is sometimes known as a "sharkskin". What Applicants have achieved is to develop a surface with very well-shaped microstructures and, in particular, finer structures than can be produced by comparative known processes. We have found that we are able to obtain micron-sized structures which are more regular, with better defined geometries.

What is particularly unanticipated was the fact that we were able to obtain such microstructures on very thin surfaces formed from very low molecular weight polymeric materials.

To better define the invention, Applicants have narrowed product by process Claim 13 to specify that the geometries of the microstructured surface are no greater than 200 μm , see page 8, line 24, of the specification. The molecular weight of the polymeric material used to make the surface is from 30,000 to 70,000 (weight average).

In the earlier work of the Assignee represented by the Theil reference, U.S. Patent 5,837,091, a laminate sheet was made from plastic materials having molecular weight ranging from 30,000 up to 5×10^6 , (col. 3, lines 50-51), and an embossing depth which goes from at least 0.2 mm (200 μm), and upwards to as much as 100 mm (col. 3, line 62). But the distinction between the work of Theil and the present work is the fact that Theil did not appreciate that it was necessary to have a low molecular weight at the same time that the embossing depth was also at the low end of 200 μm or lower. In fact, when you look at Example 2, col. 6 of the Theil reference, Theil does have embossing depth which could be as low as 0.2 (200 μm), but the molecular weight is at the very high end of 155,0000 (col. 6, line 31).

In fact, it is completely counter intuitive to have a low molecular weight when thickness is at the lower end. One would expect that in order to get a well defined microstructure one would have to use a very high molecular weight and that necessity would be even greater when the thickness is less. In fact, what Applicants have found is that when you use a low molecular weight with a very thin surface, the resulting microstructure is far superior. There is nothing in the Theil reference which would lead one to have a molecular weight of between 30,000 and 70,000 when the surface structure is 200 μm or less, which is the essence of the present invention. Accordingly, the rejection over the Theil reference should be withdrawn.

Claim 13 as currently amended is in the condition for allowance and reconsideration of the rejection is requested.

Regarding Claims 14-16, each of these claims is dependent to Claim 13 as currently amended and for the same reasons as described above, Claims 14-16 are in the condition for allowance and reconsideration of the rejection is requested.

Applicants added a new claim as Claim 19, in which the height:width aspect ratios of the microstructures are specified.

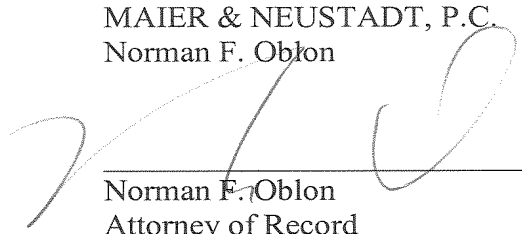
No new matter is believed to have been added.

In view of the above, it is submitted that the claims under consideration are in condition for allowance. Reconsideration of the rejections is requested. Allowance of Claims 13-16 and Claim 19 at an early date is solicited.

When these Claims are found allowable, the Examiner is respectfully requested to expand the search to non-elected claims of Group I, claims 1-12 and 18, to which same limitations as put onto Claim 13 are provided, for their allowance.

Respectfully submitted,

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